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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/705,562

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Mark A Gladden

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EXAMINER

JUNTIMA, NITTAYA

ART UNIT

PAPER NUMBER

2663

DATE MAILED: 02/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/705,562

Applicant(s)

GLADDEN ET AL.

Examiner

Nittaya Juntima

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9/14/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) 3-7, 17-21 and 31-35 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 42-44 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 8-16, 22-30 and 36-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

1. This action is in response to the amendment filed on 9/14/2004.
2. The objections to the claims are withdrawn in view of applicant's amendment.
3. Claims 3-7, 17-21, and 31-35 are cancelled as per applicant's amendment.
4. Claims 42-44 are allowed.
5. The allowable subject matter as indicated for claims 7, 21, and 35 of the previous office action, dated 2/20/2004, are withdrawn.
6. Claims 1-2, 8-11, 12, 14, 16, 22-24, 27-30, 36-39, and 41 are rejected under 35 U.S.C. 102(b).
7. Claims 13, 15, 25-26, and 40 are rejected under 35 U.S.C. 103(a).

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-2, 8-11, 12, 14, 16, 22-24, 27-30, 36-39, and 41 are rejected under 35 U.S.C. 102(b) as being anticipated by are rejected under 35 U.S.C. 102(b) as being anticipated by Petersen (USPN 5,805,588).

Per claims 1 and 28, Petersen teaches:

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A memory (TS store 56, Fig. 17) for receiving samples (samples) of a first input signal (audio wave form from telephone set T1, Fig. 17) over a first communication channel (TS#1 in Fig. 18 carries sample from telephone T1) corresponding to a first communication device (telephone set T1, Fig. 17) and a second input signal (audio wave form from telephone set T3, Figs 5 and 17) over a second communication channel (time slot#2 in Fig. 18 carries sample from telephone T2) corresponding to a second communication device (telephone set T2). See col. 7, ll 20-23 and col. 15, ll 1-7, 30-39, and 47-50.

A processor (a cell assembly multiplexor 58 coupled to TS store 56) operable to receive the samples from the memory (col. 15, ll 47-48), generate a first plurality of datagrams (micro cells) containing at least a portion of the samples of the first input signal (cells #1, belonging to telephone set T1 and containing sample(s), are generated by multiplexor 58 in each frame, col. 7, ll 47-52, Fig. 8, and col. 17, ll 5-8, 13-21, 24-26), generate a second datagram containing a portion of the samples of the second input signal (cell#2 is generated by multiplexor 58, col. 7, ll 19-23 and col. 17, ll 5-8 and 13-21), the second datagram is staggered from each of the first plurality of datagrams such that the second datagram is ready for communication at a different time than any of the first plurality of datagrams (cell#2 is transmitted at a different time than any of cells#1, Fig. 5, col. 7, 19-23 and 47-25).

Peterson further teaches that four datagrams (microcells number 1, 2, 3, and 4 in Fig. 5) are sent at each 125 μ s (col. 7, ll 19-20), wherein each datagram are transmitted as soon as the first sample is received (Fig. 8 and col. 7, ll 47-52), and datagrams (cells) are generated by the processor (cell assembly multiplexor 58, Fig. 17) at a frequency which is controlled by the internal clock signal (col. 17, ll 5-23). Therefore, the processor (cell assembly multiplexor 58,

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Fig. 17) must generate the second datagram, i.e. cell#2, by starting a timer (a clock signal measuring a first time interval of $125/4 \mu\text{s}$ in a $125\mu\text{s}$ frame shown in Fig. 5) at a time when one of the first plurality of datagrams, e.g. cell#1 in Fig. 5, is ready for communication, wherein the timer is started by an interrupt (e.g. when a first sample associated with time slot#1 is received from telephone T1), and establishing the second communication channel (i.e. transmitting cell#2) near a time when the timer elapses (a clock signal measuring a first time interval of $125/4 \mu\text{s}$ in a $125\mu\text{s}$ frame ends) in response to a timer completion interrupt signal (a clock signal measuring a second time interval of $125/4 \mu\text{s}$ in a $125\mu\text{s}$ frame following a first time interval).

Per claims 2, 16, and 29, Petersen teaches that a predetermined amount of time ($31.25 \mu\text{s}$) approximately equals to a communication time (31.25 microseconds) of one of the first plurality of datagrams (cell no. 2 is staggered from cell no. 1 in frame 1 by $31.25 (125/4) \mu\text{s}$, Fig. 5 and col. 7, ll 19-23).

Per claims 8, 22, and 36, Petersen teaches receiving the samples over a bus (time slot stream connecting A/D 54 to TS store 56 as shown in Figs. 17 and 18), the bus operable to support communication over a plurality of communication channels (time slot #1- time slot #n) (col. 15, ll 34-40 and 45-48).

Per claims 9, 23, and 37, Petersen teaches that the bus (time slot stream connecting A/D 54 to TS store 56 as shown in Figs. 17 and 18) comprises a plurality of windows (time slots) and establishing an active channel (time slot #1 carrying sample for telephone set 1) using one of the windows at a time when one (telephone set 1) of communication devices becomes active (col. 15, ll 15-21 and 34-35).

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Per claims 10, 24, and 38, Petersen teaches that a first active channel (time slot #1 carrying sample for telephone set 1) uses a first window (time slot 1) of the bus (time slot stream connecting A/D 54 to TS store 56 as shown in Figs. 17 and 18) and another active channel (time slot #2 carrying sample for telephone set 2) use a first available window (time slot#2) following an occupied window (time slot #1) of the bus (col. 15, ll 15-21 and 34-37).

Per claims 11 and 39, Petersen teaches establishing the second channel/the other active channel (time slot #2 carrying sample for telephone set 2) near a time when the timer elapses (a clock signal measuring a first time interval of $125/4 \mu\text{s}$ in a $125\mu\text{s}$ frame ends, Fig. 5, col. 7, ll 19-20, and col. 17, ll 5-23).

Per claim 12, Petersen teaches generating the samples of the first and second input signals (col. 15, ll 15-21 and 34-36).

Per claims 14, 27, and 41, Petersen teach that each of the datagrams (PR-PDU-cells) comprises an ATM cell (an ATM cell of 53 bytes) containing a predetermined number of samples (number of time slots contained in VC-PDUs, col. 19, ll 29-32) (Fig. 26 shows a PR-PDU-cell of 56 bytes comprising an ATM cell where the user data are contained in different time slots, which, in the case, belong to the same connection, col. 18, ll 47-49, and col. 19, ll 33-36).

Per claim 30, Petersen teaches that the memory (TS store 56 in Figs. 17 and 20) comprises a first buffer (TS1 in TS store 56) corresponding to the first communication device (telephone set T1) and a second buffer (TS3 in TS store 56) corresponding to the second communication device (telephone set T3) (col. 15, ll 34-37, 47-50, and col. 16, ll 26-29).

10. Claims 15 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petersen (USPN 5,805,588).

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Claims 15 and 25 are system claims corresponding to method claims 1 and 11, and are rejected under the same reason set forth in the rejection of claims 1 and 11 with an addition that Petersen does not teach at least one computer readable medium and software encoded on the computer readable medium. However, it would have been obvious to one skilled in the art to include at least one computer readable medium and software encoded on the computer readable medium as recited in the claim. The suggestion/motivation to do so would have been to provide a portable and computer compliant container for the software and to control the functioning of computer hardware and direct its operation as recited in the claim, respectively.

11. Claims 13, 26, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petersen (USPN 5,805,588) in view of Holler (USPN 6,717,955 B1).

Per claims 13, 26, and 40, Petersen fails to teach using different compression methods.

However, Holler teaches using different compression methods (a suitable voice codec and silence removal) (Abstract, ll 6-10).

Given the teaching of Holler, it would have been obvious to one skilled in the art to include different compression methods into the teaching of Petersen. The motivation/suggestion to do so would have been to provide an option for voice compression (Abstract, ll 6-10).

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- USPN 5,600,649 (Sharma et al.), disclosing starting a timer when a datagram is ready for communication (Figs. 18 and 25, col. 39, ll 56-67).

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- USPN 6,834,057 B1 (Rabenko et al.), disclosing discarding the received samples based on a threshold (Fig. 28, col. 57-col. 24, ll 1-14).


13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nittaya Juntima whose telephone number is 571-272-3120. The examiner can normally be reached on Monday through Friday, 8:00 A.M - 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nittaya Juntima
January 25, 2005

NJ


RICKY NGO
PRIMARY EXAMINER